

The research mentioned here was performed at the [Department of Metallurgical and Materials Engineering](#) of the [Middle East Technical University](#) (Ankara, Turkey) over the period of July 1993 to February 1999 under the guidance and supervision of Prof. Dr. A. Cunevt Tas.

Lab photos (from July 1993 to February 1999)

Please refer to <https://www.cuneyttas.com/intjpub.pdf> and <https://www.cuneyttas.com/pat.pdf> for more recent work (than listed in this page) of A. C. Tas and/or his students and colleagues.

The undergraduate students listed below used this laboratory (for brief periods between 1994 and 1999) to gain their very first experience in the synthesis of advanced ceramics and some of them became co-authors of A. C. Tas in articles published either in refereed Journals and symposium proceeding books.

Emre Akin
 Vahit Atakan
 Defne Bayraktar
 Uzay Damali
 Hakan Der
 I. Erkin Gonenli
 Korhan Imer
 Arca Iyiel
 Agca B. Kayihan
 Ersin E. Oren
 Ercan Taspinar
 Alp Sehirlioglu
 Onder Uysal
 A. Erman Uzgur
 O. Doruk Yener

The grad students listed below performed their experimental work in the same lab (over the period of July 1993 to February 1999) and earned their Master of Science diplomas.

Nezahat Kivrak
 F. Arzum Simsek
 N. Ozgur Engin
 Oguz Yigiterhan
 Bora Mavis

The research of this lab was funded by the Turkish “State Planning Agency (DPT)” and “Scientific and Technological Research Council” of Turkey (TUBITAK).

BIOCERAMICS

- 1) An Investigation of the Chemical Synthesis and High-Temperature Sintering Behavior of Calcium Hydroxyapatite (HA) and Tricalcium Phosphate (TCP) Bioceramics (1994-1997)
- 2) Synthesis of Hydroxyapatite (HA) / Tri-Calcium Phosphate (TCP) Composite Bioceramic Powders and Their Sintering Behavior (1994-1996)
- 3) Chemical Preparation of Calcium Hydroxyapatite in Synthetic Body Fluids at 37°C (pH=7.4) and Its Use in Coating Titanium and 316L Stainless Steel Surfaces (1996-1997)
- 4) Manufacture of Macroporous Calcium Hydroxyapatite Bioceramics (1997-1998)
- 5) Dip-Coating of Calcium Phosphate Bioceramics on Titanium or Stainless Steel Strips (1997-1998)
- 6) Tape-Casting of Calcium Hydroxyapatite Bioceramics (1996-1998)

ALUMINATES

- 7) Low-Temperature Synthesis of Lanthanum MonoAluminate (LaAlO₃) (1994-1995)
- 8) Synthesis of the Ceramic Powders of the Binary Compounds of CaO-Al₂O₃ System by Combustion Synthesis (1996-1997)
- 9) Synthesis of Pure and Nd-doped YAG (Y₃Al₅O₁₂) and YIG (Y₃Fe₅O₁₂) Powders by Combustion Synthesis (1996-1997)
- 10) Synthesis of Ruby Powders by Combustion Synthesis (1996)

ZIRCONATES

- 11) Preparation of Lead Zirconate (PbZrO₃) by Homogeneous Precipitation and Calcination (1996-1997)
- 12) Synthesis of Pure and Gd-doped CaZrO₃ Powders by Chemical Means in Aqueous Solutions (1997-1998)

SILICATES

13) Preparation of SiO₂ (Silica), Mg₂Al₄Si₅O₁₈ (Cordierite), MgSiO₃ (Enstatite), and 3Al₂O₃.2SiO₂ (Mullite) Powders by Chemical Precipitation (1996-1997)

TITANATES

14) Low Temperature Synthesis of PZT Powders by Homogeneous Precipitation and Calcination (1997-1998)

15) Hydrothermal Synthesis of Pure and RE-doped BaTiO₃ Powders (1996-1998)

BORATES

16) Synthesis of 9Al₂O₃.2B₂O₃ (Aluminum Borate) Whiskers by a Solution-Growth Technique (1996-1997)

FERRITES

17) Chemical Synthesis of RE-doped Magnetic BaFe₁₂O₁₉ Powders (1997-1998)

18) Synthesis of (Ni,Zn)Fe₂O₄ Powders by Chemical Precipitation from Aqueous Solutions (1997)